

In the claims:

1. (Currently amended) ~~Using the~~ A bioremediation method comprising the step of using microorganisms to concentrate and eliminate radionuclides in the radioactive water of nuclear pools.
2. (Currently amended) ~~Bioremediation method to concentrate and eliminate radionuclides from the radioactive water of nuclear pools characterised by a bioreactor that~~ The bioremediation method of claim 1 comprising the step of using a bioreactor contains ~~containing~~ a metallic material ~~such as titanium or stainless steel wound into a ball, or any other material~~ that is non-corrosive or non-degradable when exposed to the radioactive water of nuclear pools and ~~that is~~ capable of being colonised ~~colonized~~ by the microorganisms found in ~~the~~ said water.
3. (Currently amended) ~~Bioremediation~~ The bioremediation method to concentrate and eliminate radionuclides from the radioactive water of nuclear pools according to claim 2 characterised because comprising directing the water to be treated ~~goes through the bioreactor, in continuous flow, to comes into contact with the material inside it and thereby create, thus creating a biofilm that retains the radionuclides.~~
4. (Currently amended) ~~Bioremediation~~ The bioremediation method to concentrate and eliminate radionuclides according to claim 2 characterised because comprising the step of culturing said ball or similar device can easily be cultivated in a laboratory in the presence of microorganisms previously isolated from the radioactive water to be treated in order to accelerate the radionuclide-concentration process.
5. (New) A method for bioremediation of water in the containment area of a nuclear power plant comprising the steps of providing a bioreactor containing a metallic material capable of being colonized by microorganisms found in said water and passing said water through said bioreactor to form a biofilm that retains radionuclides.
6. (New) A method according to claim 5 wherein said metallic material is made of a material selected from the group consisting of stainless steel and titanium.
7. (New) A method according to claim 6 wherein said metallic material is formed into balls.
8. (New) A method according to claim 5 wherein said step of providing a bioreactor comprises forming said metallic material into balls, degreasing said balls, sterilizing said balls, and placing said balls in said bioreactor.

9. (New) A method according to claim 8 wherein the cross sectional area of said bioreactor is about 280 mm^2 and said step of passing said water through said bioreactor comprises pumping through said bioreactor an average of about three cubic meters of said water per hour.
10. (New) A method according to claim 9 wherein said bioreactor is cylindrical and about 250 mm high.